

**REMARKS**

Claims 1-53 are pending, with claims 1, 15, 29, and 40 being in independent form. By the present amendment, claims 1, 15, 29, and 40 have been amended.

In the Office Action, claims 1, 2, 9, 15, 16, 23, 29, 30, 37, 40, 41 and 48 stand rejected for obviousness over United States Patent No. 4,788,588 to Tomita in view of United States Patent No. 5,489,918 to Mosier. Claims 3-8, 10, 11, 17-22, 24, 25, 31-36, 38, 39, 42-47, 49 and 50 stand rejected for obviousness over Tomita and Mosier in view of United States Patent No. 6,094,185 to Shirriff. Claims 12-14, 26-28 and 51-53 stand rejected for obviousness over Tomita and Mosier in view of United States Patent No. 6,400,374 to Lanier.

Applicant describes a method and apparatus for correcting pixel level variations to provide a consistent visual appearance of one or more pixels of a display screen with respect to a viewing position. Variations between perceived pixel level values and corresponding pixel level values, e.g. actual pixel level values as assigned by a graphics controller or as stored, for example, in a frame buffer, may be compensated for. The variations may be associated with viewing angles between pixel locations and the viewing position. The viewing position may be the actual viewing position as determined by, for example, a received user input.

For example, a calibration pattern may be displayed on the display screen and user inputs may be received and associated with pixel locations. The user inputs may be in response to the display of the calibration pattern. For example, the calibration pattern may be displayed in various parts of the display and user input received for each part of the display and the like. Thus the viewing position may be established through the calibration process and non-linear correction curves established for the pixel locations relative to the established viewing position and, again, based on the received user inputs. The user inputs may further be stored with an association to a user identity. When a user input such as, for example, a user login or the like, or any user input from which a user identity may be associated, is then processed, the user identity may be obtained along with stored user inputs, e.g. information stored from a previous calibration session or preferences registration, associated with the user identity. The viewing position may then be established along with non-linear correction curves for each pixel location relative to the

established viewing position based on the user inputs. Thus, for example, a parent and a child may provide different user inputs for a calibrated and/or preferred viewing position, which user inputs may be stored along with an association to the user identity and those inputs called up during a subsequent user identification process such as, for example, a user login or the like.

In addition, a change in a relative orientation between, for example, a particular display orientation and the viewing position may be detected and a second respective different correction factor applied to each of the corresponding pixel level values based on the detected change. Accordingly different non-linear correction curves corresponding to different relative orientations between the display orientation and the viewing position may be established relating the range of pixel level values to corrected pixel level values associated with the relative orientations.

In accordance with the MPEP, the cited documents must teach or suggest all of the claim limitations to establish a prima facie case of obviousness. The obviousness rejections cannot stand at least because the cited document(s) fails to teach or suggest all of the claim limitations.

Amended claim 1 recites, among other things, "establishing the viewing position based on one or more received user inputs." As admitted in the Action, Tomita does not disclose establishing the viewing position based on one or more received user inputs (see action, page 5, item 9). The Examiner contends, however, that this feature is taught by Shirriff. Applicant disagrees.

As admitted in the Action, "Shirriff discloses an apparatus and method for automatically adjusting computer display parameters in response to ambient light and user preferences" (page 5, item 9). Nowhere does Shirriff disclose that a viewing position is determined based on one or more received user inputs. Moreover, nowhere does Shirriff disclose that different portions of the display, i.e., pixels, are adjusted differently. This is not surprising, since Shirriff is concerned with uniformly adjusting parameters, such as brightness or contrast, of the entire display according to ambient light, which is uniform. Thus, a user's viewing position is not relevant in Shirriff, only the ambient light level and a particular user's preference are.

Tomita, Shirriff, and Mosier, alone or in combination, fail to disclose or even suggest "establishing the viewing position based on one or more received user

inputs." As discussed above, Shirriff is not concerned with a viewing position at all. Tomita also uniformly adjusts the entire display, based on a reclining angle of the display as determined by an angle sensor, not based on a user input. In Mosier, the known position of the display in the cockpit relative to the pilot is used to calculate the viewing angle (see col. 19, l. 66 to col. 20, l. 2). Lanier also fails to cure these deficiencies. In each case, if the Examiner disagrees, the Examiner is requested to point out particularly where this feature is disclosed or suggested in the cited art.

Accordingly, since the cited documents fail to disclose or suggest all of the claim limitations for at least the above reasons, the obviousness rejection of claim 1 should be withdrawn. In addition, for at least the same reasons, the obviousness rejections of independent claims 15, 29, and 40 should also be withdrawn. Moreover, the rejections of the dependent claims should be withdrawn for at least the same reasons.

Furthermore, the rejections of at least claims 5, 6, 19, 20, 33, 34, 44, and 45 should be withdrawn for additional reasons. For example, claim 5 recites, among other things, "applying a second respective different correction factor to each of the one or more corresponding pixel level values based on the detected change in the relative orientation." This feature is not disclosed or suggested in the cited documents, alone or in combination. That is, none of the cited documents teach applying second correction factor.

The Examiner admits that Tomita does not disclose this feature, but contends that Shirriff does (see Action, page 8). Applicant disagrees. In Shirriff there is only one application. That is, a value is written to the display circuitry based on a value in a user preference table. The written value is mapped to a light signal value and read according the current light signal value (see col. 4, l. 33 to col. 5, l. 31). There is no additional, second correction, as in claim 5.

According to claim 5, a correction factor is first applied according to the established viewing position, which is based on one or more received user inputs, and then a second correction factor is applied according to detected change in the relative orientation. This is not disclosed or suggested in any of the cited documents, alone or in combination. If the Examiner disagrees, the Examiner is

Application No. 09/657,532  
Amendment filed September 17, 2003  
Reply to Office Action dated June 19, 2003

Attorney Docket No. 001580-559  
Page 18 of 18

requested to point out particularly where this combination of features is disclosed or suggested in the cited art.

For the foregoing reasons, Applicants consider the application to be in condition for allowance and respectfully request notice thereof at an early date. The Examiner is encouraged to telephone the undersigned at the below-listed number if, in the Examiner's opinion, such a call would aid in the examination of this application.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

  
By: \_\_\_\_\_  
Theodosios Thomas  
Registration No. 45,159

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(919) 941-9240

Date: September 17, 2003

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 17, 2003

Jennie Snead  
(Typed Name of Person Signing Certificate)

  
(Signature of Person Signing Certificate)

Date of Signing: September 17, 2003